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Table 1: Description of Gastrointestinal (GI) Symptoms Among IBD Patients with COVID-19

GI symptoms	All patients		Active Disease		Disease in Remission	
	N	(%)	N	(%)	N	(%)
Any Symptom	764		340		382	
Abdominal pain	259	34%	149	44%	101	26%
Diarrhea	609	80%	283	83%	290	76%
Nausea	180	24%	82	24%	94	25%
Vomiting	95	12%	41	12%	47	12%
Other	79	10%	35	10%	36	9%

Table 1. Description of Gastrointestinal (GI) Symptoms Among IBD Patients with COVID-19. New GI symptoms reported among all patients and stratified by disease activity at time of COVID-19 infection.**Table 2: Demographics and Clinical Characteristics of IBD Patients with and without New GI Symptoms During COVID-19 Infection**

Characteristic	New GI Symptoms (n=154)	No New GI Symptoms (n=2153)	P value
Age in years, mean (SD)	43 (17)	40 (18)	0.002
Female, n (%)	424 (55.5)	1,019 (47.3)	0.001
Race, n (%)			
White	589 (77.1)	1,732 (80.4)	0.05
Black	60 (7.9)	124 (5.8)	0.04
Asian	55 (7.2)	99 (4.6)	0.006
Any comorbidity, n (%)	280 (36.6)	670 (31.1)	0.005
Disease Type, n (%)			0.93
Crohn's disease	431 (56.4)	1,204 (55.9)	
Ulcerative colitis	319 (41.8)	898 (41.7)	
IBD Disease Activity, n (%)			<0.001
Remission	382 (50)	1,257 (58.4)	
Mild	158 (20.7)	409 (19)	
Moderate	138 (18.1)	303 (14.1)	
Severe	44 (5.8)	106 (4.9)	
Medication, n (%)			
Any medication	696 (91.1)	2,026 (94.1)	0.004
TNF antagonist monotherapy	176 (23)	758 (35.2)	<0.001
Oral Corticosteroid	53 (6.9)	159 (7.4)	0.68
Mesalamine/sulfasalazine	251 (32.9)	641 (29.8)	0.11

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RATES OF HOSPITAL-ACQUIRED CLOSTRIDIODES INFECTION DURING THE COVID-19 PANDEMIC IN A TERTIARY HEALTHCARE SETTING

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Background and Aim *Clostridioides difficile* infection (CDI) is the leading cause of hospital-acquired infectious diarrhoea. High bed occupancy rates in acute hospitals correlate with an increased incidence of healthcare-associated CDI (HA-CDI). The COVID-19 pandemic led to changes within our healthcare system, including cessation of elective procedures and reduced presentations for non-COVID-19-related illnesses. Our aim was to determine if improved hand-hygiene, increased use of personal protective equipment (PPE), social distancing and reduced hospital occupancy observed during the first wave of the COVID-19 pandemic also impacted on rates of HA-CDI. Methods: We defined the COVID-19 outbreak period as March to May 2020 and identified newly-acquired HA-CDI cases during the same periods in 2018, 2019 and 2020, using the hospital *C. difficile* database. HA-CDI was defined as per national case definitions. Electronic records were used to assess patient demographics and biochemical markers. Hospital antimicrobial consumption and hand-hygiene audit data for the study period and corresponding in 2018, 2019 and 2020 were collected. Statistical analysis was performed using STATA. Results Fifty patients with HA-CDI were identified. Chi-squared analysis with Yates correction demonstrated a decrease in newly-acquired HA-CDI during the first wave of the COVID-19 pandemic period when compared to the same period in 2018 and 2019 (p=0.029); (Table 1). Conclusion During the first wave of the COVID-19 pandemic, static antimicrobial use, reduced hospital occupancy, improved hand hygiene and the use of PPE resulted in a decline in HA-CDI; demonstrating the importance of hospital activity and infection prevention and control measures on HA-CDI during an inpatient stay.

Table 1. Patient demographics and biochemical markers, new cases of HA-CDI, rate of HA-CDI, total hospital admissions, antimicrobial consumption and hand hygiene compliance

March - May	2018	2019	2020	Total
Total patients with HA-CDI	14	27	9	50
Hospital Admissions	6368	6519	4781	5889
CDI Rate per 10,000 BDU*	2.24	4.242	2.155	2.978
Male	5 (35.7%)	16 (59.3%)	7 (77.8%)	28 (56%)
Mean Age (Years) (17 - 94 years)	71	68	67	69
Admitting speciality				
Medical	10 (71.4%)	14 (51.9%)	6 (66.7%)	30 (60%)
Surgical	2 (14.3%)	9 (33.3%)	2 (22.2%)	13 (26%)
Critical care admission*	2 (14.3%)	4 (14.8%)	1 (11.1%)	7 (14%)
Concurrent antimicrobials**	3 (21.4%)	22 (81.5%)	7 (77.8%)	32 (64%)
Hb (g/dl) (11.7-17.5)	10.5	10.3	10.1	10.3
Albumin (g/l) (35-52)	31	33	27	31
CRP (mg/l) (0-5)	91.7	85.4	175.9	103.4
COVID-19 Positive	N/A	N/A	4 (44.4%)	
Hospital hand Hygiene Compliance	85%	86%	90.3%	87.1%
Hospital antimicrobial consumption (DDD***/100 BDU****)	94.5	93	95	94.2

* Patient an in-patient in the critical care unit at time of diagnosis of CDI

** Antimicrobial therapy during admission

*** BDU: Bed days used

**** DDD: Defined daily dose

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COVID-19 IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Data on coronavirus disease 2019 (COVID-19) and its clinical implications on inflammatory bowel disease (IBD) are rapidly evolving. We performed a systematic review and meta-analysis to investigate clinical characteristics, therapeutic options and outcomes in IBD patients with COVID-19. Methods: We searched PubMed, EMBASE, Cochrane Central, Clinicaltrials.gov, Web of Science, MedRxiv and Google Scholar from inception through October 2020. We included cohort studies that involved IBD patients with confirmed COVID-19. Two investigators independently screened the studies for inclusion and extracted the data. Data were collected on the prevalence of COVID-19 among patients with IBD, patient characteristics, pre-infection treatments for IBD, co-morbidities, hospitalization, intensive care unit (ICU) admission, and death. Results: Twenty-three studies with 51,643 IBD patients and 1449 with COVID-19 met our inclusion criteria. In 14 studies (n = 50,706) that included IBD patients with and without COVID-19, the infection rate was 1.01%. Of IBD patients with COVID-19, 51.3% had Crohn's disease, 41.5% had ulcerative colitis, and 6.4% had indeterminate colitis. Mean ages for patients ranged from 18 to 85 years and 60.71% were females. Nine studies (n = 687) reported outcomes according to IBD therapy received. Oral and rectal mesalamine was used in 23.4% of patients with 44.1% requiring hospitalization, 8.7% ICU admission, and 6.8% deaths (Table). Immunomodulators (methotrexate, azathioprine, 6-mercaptopurine) were used in 12.4% of patients with 37.6% requiring hospitalization, 3.5% ICU admission, and 2.4% deaths. Anti-tumor necrosis factor (TNF) therapies were used in 37.2% patients with 12.9% requiring hospitalization, 1.2% ICU admission, and 0.8% deaths. Outcomes related to corticosteroid use could not be delineated with available data. Conclusions: The infection rate for COVID-19 in IBD patients was lower than that of general population. Use of mesalamine was significantly associated with worse hospitalization outcomes, while use of anti-TNFs was associated with favorable hospitalization outcomes. Further investigation clarifying the mechanisms of these disparate observations could help identify risk- and adverse outcome-mitigating strategies for patients with IBD.

	5-ASA	Immunomodulator	Anti-TNF	P
Hospitalization (%)	44.1	37.6	12.9	<0.001
ICU admission (%)	8.7	3.5	1.2	0.001
Death (%)	6.8	2.4	0.8	0.002

Outcomes for corticosteroids could not be delineated with available data.

Table

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BIOLOGICS AND COVID-19 OUTCOMES IN INFLAMMATORY BOWEL DISEASE PATIENTS

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Introduction Both clinicians and inflammatory bowel disease (IBD) patients remain concerned that either their disease or medications—namely biologics, may increase the risk of severe adverse outcomes from coronavirus disease-2019 (COVID-19). We performed a